

**ENVIRONMENTAL IMPACT ASSESMENT STUDY FOR MINING ACTIVITES ON
MININIG CLAIM NO: 72401,73399,73400,7339673398,73398**

IN KUNENE REGION NEAR BRAND BERG, KHORIXA DEISTRIC.



REPORT DONE BY: ADANCED ENVIRONMRNTAL AGENCY CC

DONE FOR LUXARION MINING CC

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1. EXECUTIVE SUMMARY

The proponent Luxation mining have appointed advanced environmental agency cc to conduct an EIA study on mining activity on mining claims mc no: the proponent proposes to conduct mining exploration on mining clam no: 72401,73399,73400,7339673398,73398 in Kunene region Khorixas district ,Kunene mining a full owned Namibian company growing with a partnership of foreign investors .Luxario is currently running under the leadership of Mr. David karingombe who have made effort to partnership with investors in order to start a small mining exploration on the above mentioned mc no. 72401,73399,73400,7339673398,73398 the group proposed to conduct mining exploration on the above mentioned mc no to find the deposited minerals with an aim to mine in compliance with the environmental management act.

Luxarion have appointed Advanced environmental agency cc consultants to conduct the environmental impact assessment study in guideline with the requirement of the environmental management (act 7 of 2007) and its regulation of 2012.

1.1 Location

The mining claims are located in Kunene region, Khorixas in the areas of brand berg between the central-western escarpment and inselbergs and the western highlands lien in the edge of the central desert near brand berg.

The aim of this study is to evaluate the negative and positive potential impacts associated with the proposed activities as well as propose the mitigation measures. Study covers the baseline study, ecological impacts, social economic impacts as well as climate change as heritage impacts.

The following methodologies were used to compile to gather crucial information and finalize the report. Potential stake holders were consulted, regional council as well as the community was done through newspapers, posters were put up on site, desktop studies, reviewing of previous reports, national strategy on the sustainable management of bush resources.

The approval of this project will result in a number of positive impacts, like job creations, improvement in lying wood of the community, increasing on exports. However, the project is also associated with a number of negative impacts on the geology, water resources, fauna and ecological aspects of the area thus the EIA study was to evaluate the extent of the potential impacts both economically as well as social and propose the right mitigation measures in order to Mantanani in maintaining sustainable development.

1.2 Objectives of this report

- To determine potential environmental impacts associated mining explorations
- To evaluate the baseline condition in order to pick up the potential impact associated with the proposed project and then put the right mitigation measures in place.
- To consult with key, interested and affected stakeholders so that the in the formulation of the EIA report and implementation of the environmental management plan.

- To propose alternative measure where it is noticed that adverse effect may occur and to set up an environmental management plan that will govern all the activities project for a better protection of the environment.

The draft report was made available to the public/stake holder for comments. The draft report included all potential impacts positive as well negative and proposed mitigation measures put in place an impact matrix was used to establish the environmental risk of the overall project. Possible mitigation measures were also included as well as the environmental management plan with guidance on applying the mitigation measures put in place during the project activities.

1.3 Scope of the project

The scope of the study includes carrying out environmental investigation according in line with the provision of the legislation of the environmental management act (7 of 2007) which includes the current environmental position on all its aspects. The baseline study was done on climate change, vegetation, weather e.tc.

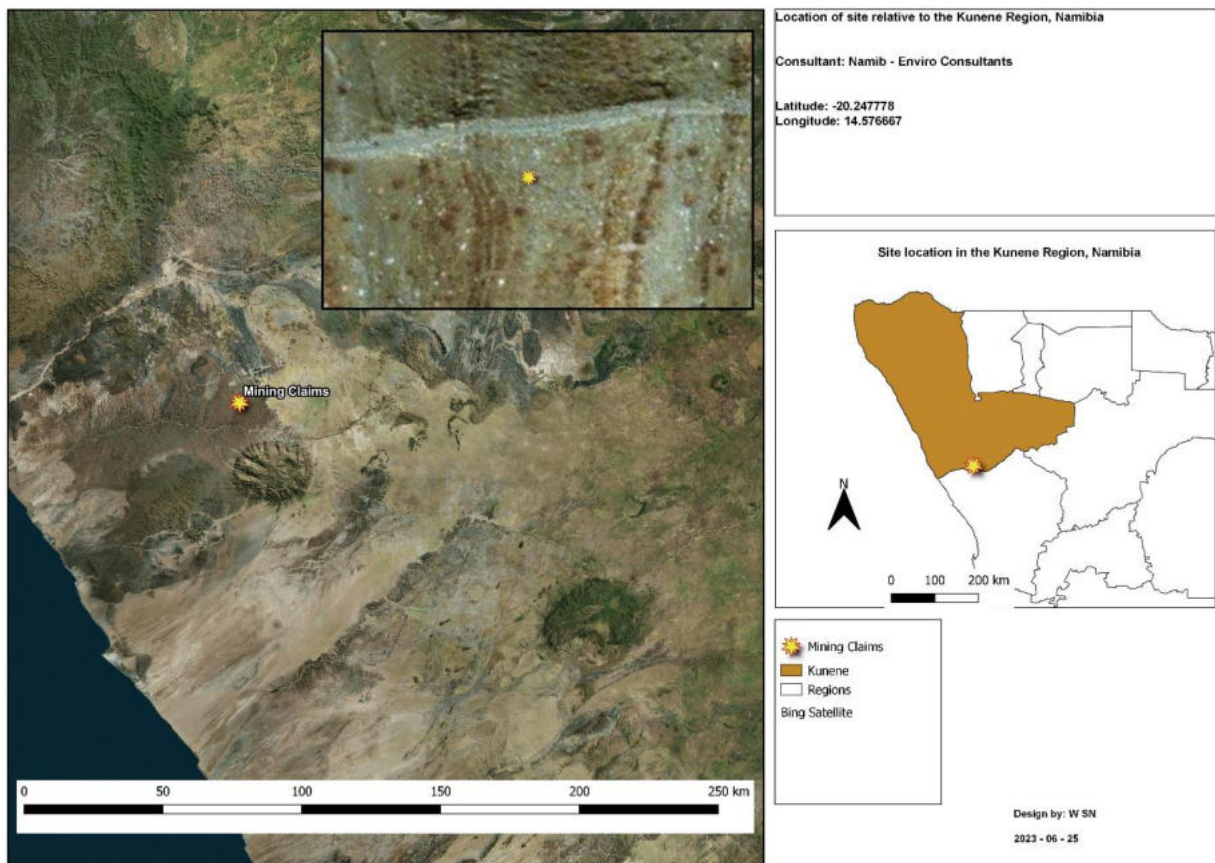
- determine the potential environmental and social-economic impact driven from the exploration activities.
- to establish baseline environmental condition so that impact could be projected and sufficient mitigation measures could be designed
- to consult with key, interested and affected stake holder so that their concerns and considered in the form in the formula.
- comply with NAMIBIAN ENVIRONMENTAL ASSESSMENT REGULATION (2012) environmental management ACT (NO.7 OF 2007) or other prevalent laws and regulation.
- to present alternate measures when it is noticed that adverse effect may occur.
- to set up proper environmental management plan according to the project, to guide the operation of the project with minimizing impacts.

2. methodology

- desktop study-this part of the study involves reviewing of previous reports, booklets, listing government list, containing geological climate, demographic studies, hydrological data of Namibia.
- Site visit-the EIA team visited date, the site visit to is visual is the physical nature of the proposed site, pick up primary data gather information on the state of the site.
- public participation process the act states that interested and affected part be consulted, posters were put site and public meeting.

2.1 project description

Luxurio mining cc proposes to contact mining exploration on mc no, in the Kunene region near brandberg.co-ordination of the propose are and see the attached map area, specifically the skeleton coast or Namibia near brandberg.



the mining claims are located in EPL NO: surrounded by another EPL

2.2 . project activities

Exploration-is the process of searching for evidence pf any mineralization hosted in the surrounding rocks, proponents, the aim of this stage is to find high quality are.

It is vital to note that, construction will take place during the phase of exploration in addition, existing roads will be used hence reducing the impacts of cleaning vegetation. Road in bad.

Condition will be upgraded and where the mining claims are in accessibility of vehicles.

2.3 Geological research

The project is grated by research on the preferred site the proponent has no appointment a geology's pf use stature imagination and aerial photographs Desktop information is used to generate a modern on which all project exploration plans will be based in the future.

Reconnaissance will be done where by Mr. David Karingombe the owner will walk around the mining claims so as to try and identify areas with the Ore deposit in case that Mr. David identifies a pontine area, the geology I will further verify ,during this stage prospectors will only look in the area thus for use full minerals and other area to where a deposit may be hidden the main purpose of carrying ab reconnaissance is to reduce the areas of the stay may identifying select once for further .

2.4. TRENCHING/DRILLIN

The method of trenching is efficient to minerals that close to the surface of ,it can be used to obtain samples help establish structural controls and delineate the potentials resources is cost effective method compared to drilling . luxario mining Namibia intends to used limited trenching and also drilling trenching will be carried us out to expose the ore body near to the surface and solves and picks will only be used .Drilling will be used to have a better understanding of the subsurface geology in a case that they are deposit extends underneath ,drilling will at closer intervals also depth wise to accurate determine the shapes size ,disposition of ore and grade of ore bring water for exploration drilling will obtained from site.

Legislation/Policies	Relevant Provisions
The Constitution of the Republic of Namibia as Amended	<p>Article 91 (c) provides for duty to guard against “the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia.”</p> <p>Article 95(l) deals with the “maintenance of ecosystems, essential ecological processes and biological diversity” and sustainable use of the country’s natural resources.</p>
Environmental Management Act No. 7 of 2007 (EMA)	<p>Section 2 outlines the objective of the Act and the means to achieve that. Section 3 details the principle of Environmental Management</p>
The Minerals Prospecting and Mining Act of 1992	<p>The Minerals Prospecting and Mining Act No.33 of 1992 approves and regulates mineral rights in relation to exploration, reconnaissance, prospecting, small scale mining, mineral exploration, large-scale mining and transfers of mineral licenses.</p>
EIA Regulations GN 28, 29, and 30 of EMA (2012)	<p>GN 29 Identifies and lists certain activities that cannot be undertaken without an environmental clearance certificate. GN 30 provides the regulations governing the environmental assessment (EA) process.</p>
Nature conservation ordinance, ordinance No. 4 of 1975	<p>The Nature Ordinance 4 of 1975 covers game parks and nature reserves, the hunting and protection of wild animals (including reptiles and wild birds), problem animals, fish, and the protection of indigenous plants.</p>
National Heritage Act, 2004 (Act No. 27 of 2004)	<p>Act provides for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters.</p>
Water Act No. 54 of 1956	<p>Section 23(1) deals with the prohibition of pollution of underground and surface water bodies.</p>

2.5 Geological analysis

The proponent will take a sample to determine the portion of metallic or non-metallic presence in the ore

2.6 map

A Map with indicated specific co-ordinates where the mc falls will be produced to guide the mining phase

2.7 Decommissioning

At this stage the proponent follows the environmental management plan rehabilitate area all affected areas will be rehabilitated, activities including beautifully all pits, stock piling distorted rocks

2.8 project cost

The total funding required to set up the project is not yet established

2.9 Alternative

The chapter aims to outline the alternate to this project, alternate to the project are different other possible of course of action, where can be adopted. The alternate to the proposal.

1-alternat location

2-no project alternate

3-consatract project

4-Alternate location

5-this could be an alternate location, impairs that different on the current. The fact that there are possibilists of tin claims discorded justifies that the project should occur if the current site.

3. The no go project alternative

-This implies that the project must not be undertaken a the proposed cared rather the hard remain undisturbed however, no project alternate will be less forwarded socio-economic persecute due to the following reaction.

Location empowerment-the shareholders Namibian this will reduce unemployment, as in well as improve the living standard in village.

- Locals will gain and improves their skills, skilled and non-skilled.

Development-future plans to mine will improve community living and unfractured

- Job creation, a greater number of Namibian from Kunene as well all over the country will be opportunities of employment

- other alternate
- alternative assessment with care
- registration of police form
- this chapter, reviews variants application e.g.

NB: NOTE

4. DISCRPTION OF THE RECEIVING ENVIRONMENT

Mineral exploitation in Namibia is a substantial industry that employs a huge number of people and contributes significantly to the national economy. When it comes to minerals, Namibia is well-diversified. Because mineral rights are vested in the state, the government of Namibia is the regulating agency for all minerals being exploited (Mansfeld, 2006). In Namibia, there are various alternatives for exploration or mining, and several application channels must be followed in order to comply with the legislation (MIT, 2003).

After South Africa, Ghana, Tanzania, Zimbabwe, and Zambia, Namibia's mining sector is the sixth largest in Africa. Minerals account for roughly 15% of Namibia's GDP, the sector is the largest contributor to the country's GDP, and mining products account for up to 50% of Namibia's yearly export revenues. The mining industry directly employs about 10,000 people (Bendi, 2003). The project will not only improve the community's livelihoods, but the proponent will also depend on the revenue that will be generated.

4.1 Climate conditions

4.2 Temperature

According to MEFT (2021), the Namib Desert's coastal climate is mostly affected by the cold

Benguela Current and the South Atlantic Anticyclone. Temperatures are generally moderate (average minimum and maximum temperatures reflect a range of around 7 to 32 °C during the coldest and hottest months, respectively), and fog is common (about 125 days per year on the coast dropping to about 40 days per year 80 km inland). June is the coldest month of the year,

4.3 Air quality

Emissions and dust from automobiles traveling on gravel roads, and wind erosion from exposed places are all possible sources of air pollution in the area. It was observed that the air quality in proposed area is good.

4.5 Geology

The geology is clearly apparent. Time and nature have fashioned a sand and rock dreamscape. Mica schists, gneiss, and granites date back over a billion years. The SCNP's Damara Super group granites and gneisses form the deep root zone of a north-south-trending Alpine-type mountain belt that formed 550 million years ago during continental collision and amalgamation, resulting in the formation of Gondwana, the southwestern part of the old supercontinent Pangaea. Terrace Bay still has the remnants of previous lava flows. Today, roaring dunes, clay castles, and beaches gleam with wind-polished stones can be found.

4.6 Hydrogeology and water resources

Several springs provide vital water to coastal areas, allowing large creatures to travel further west than they might otherwise. The majority of springs are generated by water being forced to the surface along faults in the underlying rock formations, although other springs are formed by water being driven to the surface along faults in the underlying rock formations. The Kunene River's mouth provides a critical habitat for a variety of birds, fish, turtles, and other species.

4.7 Fauna

The fauna of the khorixas has become specially adapted to the unique and severe physiographical characteristics of the area. Whilst some species are endangered or even on the Red Date Species list and that reason are protected, all species in the park deserve full protection as they have managed to adapt to this extremely hostile environment.

Type of fauna	Number of different species/genera	Total around Namibia
Mammal Diversity	61-75 Species	217
Bird Diversity	111- 140Species	658
Reptile Diversity	51-60 Species	258
Frog Diversity	1-3 Species	50
Termite Diversity	7-9 Genera	19
Scorpion Diversity	12-13 Species	21

Common name	Scientific name	Red Data Status
Jackass Penguin	<i>Spheniscus demersus</i>	Critically endangered
Great Crested Grebe	<i>Podiceps cristatus</i>	Critically endangered
White Pelican	<i>Pelecanus onocrotalus</i>	Endangered
Cape Gannet	<i>Morus capensis</i>	Endangered
Crowned Cormorant	<i>Phalacrocorax coronatus</i>	Endangered
Black Stock	<i>Ciconia nigra</i>	Endangered
Marabou Stork	<i>Leptoptilos crumeniferus</i>	Vulnerable
Glossy Ibis	<i>Plegadis falcinellus</i>	Vulnerable
Greater Flamingo	<i>Phoenicopterus ruber</i>	Endangered
Lesser Flamingo	<i>Phoeniconaias minor</i>	Endangered
Egyptian Vulture	<i>Neophron percnopterus</i>	Critically endangered
Tawny Eagle	<i>Aquila rapax</i>	Vulnerable
Bateleur	<i>Terathopius ecaudatus</i>	Endangered
African Fish Eagle	<i>Haliaeetus vocifer</i>	Vulnerable
Martial Eagle	<i>Polemaetus bellicosus</i>	Vulnerable
African Black Oystercatcher	<i>Haematopus moquini</i>	Vulnerable
Chestnut Banded Plover	<i>Charadrius pallidus</i>	Vulnerable

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Lesser Flamingo	<i>Phoeniconaias minor</i>	Endangered
Egyptian Vulture	<i>Neophron percnopterus</i>	Critically endangered
Tawny Eagle	<i>Aquila rapax</i>	Vulnerable
Bateleur	<i>Terathopius ecaudatus</i>	Endangered
African Fish Eagle	<i>Haliaeetus vocifer</i>	Vulnerable
Martial Eagle	<i>Polemaetus bellicosus</i>	Vulnerable
African Black Oystercatcher	<i>Haematopus moquini</i>	Vulnerable
Chestnut Banded Plover	<i>Charadrius pallidus</i>	Vulnerable

Invertebrates and vertebrates

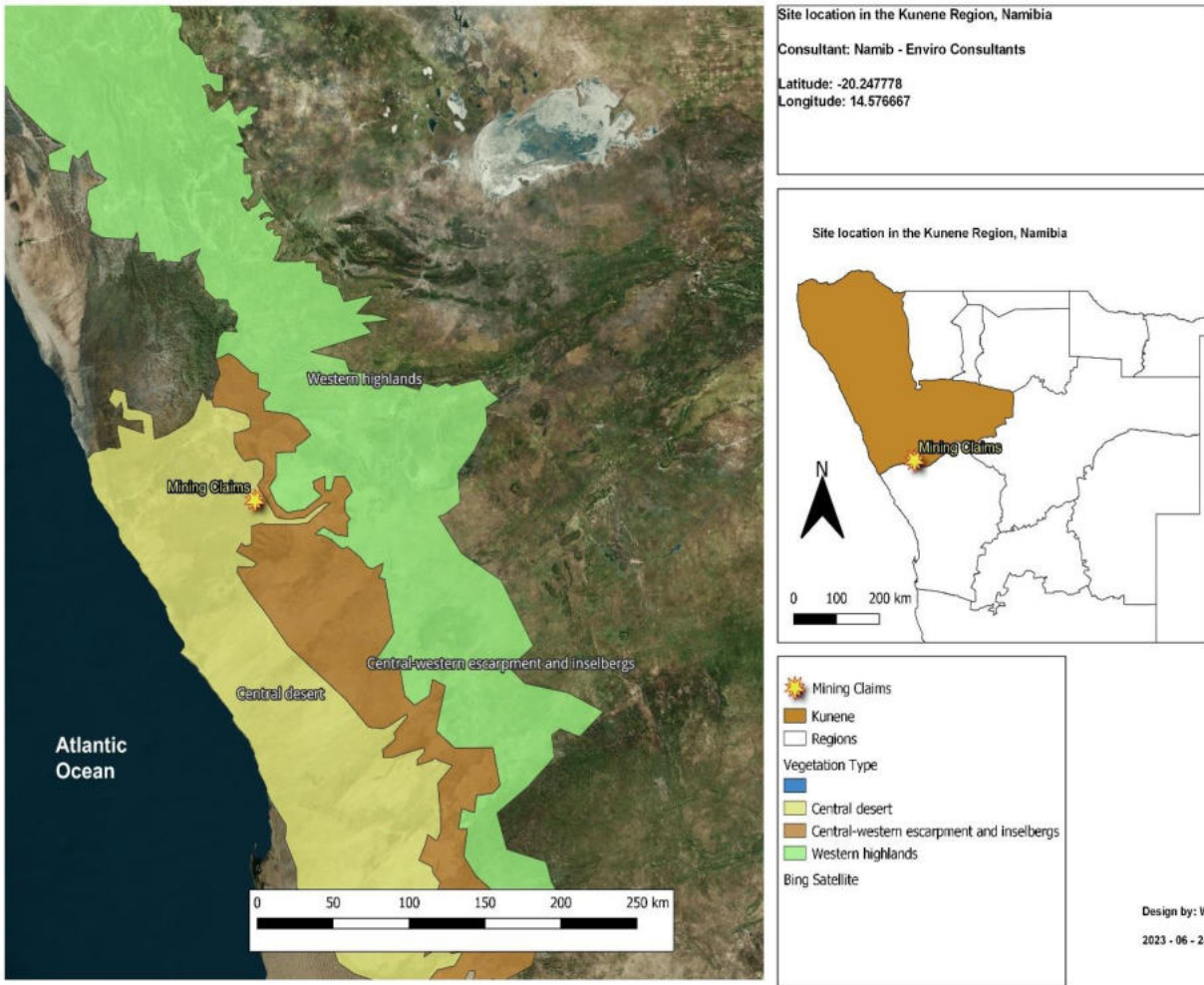
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Black Stock	<i>Ciconia nigra</i>	Endangered
Marabou Stork	<i>Leptoptilos crumeniferus</i>	Vulnerable
Glossy Ibis	<i>Plegadis falcinellus</i>	Vulnerable
Greater Flamingo	<i>Phoenicopterus ruber</i>	Endangered

It is known that the dune fields in the park hold a number of endemic *Tenebrionid* beetles, scorpions and arachnids. Regarding reptiles, the desert plated lizard *Gerrhosaurus skoogi* deserves special mention. Endemic to the Northern Namib this species is the dominant lizard species inhabiting the dune systems of the Northern Namib and dune slip faces in particular. Mammals in the fog zone of the Namib Desert include permanent residents such as the conspicuous oryx (*Oryx gazella*), springbok (*Antidorcas marsupialis*), black-backed jackal (*Canis mesomelas*), brown hyena (*Hyaena brunnea*), and the Cape fur seal (*Arctocephalus pusillus*), in addition to the several small burrowing mammals such as gerbils (*Gerbillus spp.*) and whistling rats. The other mammal species are largely seasonal or occasional residents. The park supports a small population of African lions (*Panthera leo*) that are adapted to the harsh hyper-arid conditions.

4.10 Avifauna

In total, 314 bird species have been recorded in the park, accounting for 46.7 percent of Namibia's total number of indigenous bird species. The condition of the Damara Tern, which is essentially endemic to Namibia and breeds in summer on broad sandy or gravel plains, inter-dune valleys, and salt pans, is of special concern among the park's bird species. There are 21 red Data Species among them. As shown in Table 2, three of those species are highly endangered, while the remaining ten are vulnerable.

TABLE 4.11



On a regional scale, the vegetation structure can be described as the Acacia Tree and Shrub Savanna. The vegetation specifically falls under western highlands and the plant structure is grasslands and scattered trees. The mining claims fall under western highlands, ,

Vegetation Map. For protected plant species obtained around the mining claims, see table 7 below. Protected plant species around the mining claims are not abundant but fall within the range of uncommon to rare occurrence. To note, the density of vegetation around the area of study is sparse and dry. Image below shows vegetation around the study area.

Endemic to the area
<i>Hermbstaedia spathulifolia</i>
<i>Euphorbia pergracilis</i>
<i>Euphorbia rimoreptans</i>
<i>Indigofera anabibensis</i>
<i>Asystasia welwitschia</i>
<i>Blepharis ferox</i>
<i>Crassothonna agaatbergensis</i>
<i>Acanthosicyos horridus</i>
<i>Welwitschia mirabilis</i>
<i>Acanthosicyos horridus</i>
Protected species
<i>Acacia erioloba</i>

Figure 3 Vegetation type of the dominant species at the proposed site

<i>Sterculia Africana</i>
<i>Boscia albitrunca</i>
<i>Albizia anthelmintica</i>
Other notable species
<i>Sarcocaulon mossamendense</i>
<i>Adenia pechuelii</i>
<i>Arthroerua leubnitziae</i>
<i>Salsola nollothensis</i>
<i>Stipagrotis ramulosa</i>
<i>Eragrotis cyperoides</i>
<i>Brachiaria psammophila</i>
<i>Tamarix usneoides</i>
<i>Colophospermum mopane</i>
<i>Combretum imberbe</i>
<i>Salvado persica</i>
<i>Faidherbia albida</i>
<i>Balantines welwitschii</i>
<i>Typha capensis</i>
<i>Phragmites australis</i>
<i>Schoenopletus littoralis</i>
<i>Teloschistes capensis</i>
<i>Santessonia hereroensis</i>
<i>Caloplca indurata</i>
<i>Xanthoparmelia spp.</i>
<i>Parmelia hueana</i>

While many archaeological sites have been discovered along the Namibian coast, some of which provide evidence of long-term coastal occupation, many of these are regarded as "lucky finds," because the chances of artefacts surviving long enough to be discovered are extremely poor (Raison, 2016). As a result, there are just a few known archaeological sites with exceedingly old artefacts. At this time, it is unknown whether the exploration will yield any significant archaeological finds; however, an incidental find strategy may be required. Work must be suspended immediately if any heritage or culturally significant artefacts are discovered during construction, and the Namibian National Heritage Council must be notified.

4.11 Socio-economic environment

Currently accounts for a significant amount of Namibia's GDP, and tourism is only second in terms of economic importance to mining. However, tourism generates a small amount of revenue along the Kunene coast. Coastal Kunene could undoubtedly earn much more with smart, bold planning, enhancing the livelihoods of people in the region while also preserving the coast's stunning and pristine ecosystem (Mendelsohn, Jarvis, Roger, & Roberstson, 2012). Agriculture is unviable due to insufficient water and soil fertility. Because of the high-energy character of the coast, aquaculture has limited potential, and considerable development of recreational line fishing would be unsustainable because these coastal waters serve as breeding sites for many species that eventually migrate as adults to other parts of Namibia's coast.

4.12 Soils

The presence of three types of very fragile soil surface layers or crusts, which cover a substantial portion of the park and are very vulnerable to disturbance, is one factor to note here that is of high value to park management.

4.13 Abiotic soil crusts

Abiotic soil crusts result from evaporation exceeding precipitation in arid environments. Gypsum on the plains and salt on the pans and at water seepages are the two most common soil crusts in the park (and generally saline soils with variable degrees of salt crust formation in many places in the Central Namib).

4.14 Biological soil crusts

Lichens, mosses, green algae, micro-fungi, and cyanobacteria form biological soil crusts, which combine soil particles into a crust. Small crustose lichens and algae are connected with coarse sand and gravels in large portions of the park, although biological soil crusts are not known to be present in the form of the more thick and defined lichen fields found in neighbouring Dorob NP. On alluvial fan deposits next to the Hoarusib, Khumib, and Sechumib Rivers and their historic tributaries, and on hillsides along the eastern edge of the Skeleton Coast Park, lichen-dominated soil crusts ranging from thick and diversified communities can be found.

4.15 Desert pavement

A large portion of the park is made up of gravel plains that represent an ancient Pleistocene erosion platform that hasn't been altered by anything other than in-situ wind erosion and chemical accretion and deposition, mostly from marine and fog sources, and in fact several successive erosion platforms. The third extremely sensitive feature of the Skeleton Coast NP substrates are ancient gravel and pebble¹³ deposits that represent an ancient landscape of Pleistocene age (up to 2.7 million years old) and represent an ancient landscape of Pleistocene age (up to 2.7 million years).

5. Assessment of impacts

The goal of this section on impact assessments is to identify and examine the most important environmental implications from mineral exploration activities on EPL 8496, as well as feasible mitigation actions. If mineral exploration activities are discontinued in the future, an EIA will be required to address the resulting environmental impacts. This section also includes mitigation measures for the identified impacts. A checklist was used as an assessment methodology to examine each impact identified.

Table 5 A summary of socio-economic benefits and issues

Impacts	Negative		Positive		No impact
	Short term	Long term	Short term	Long tem	
Flora and fauna and avifauna	<input checked="" type="checkbox"/>				
Noise pollution	<input checked="" type="checkbox"/>				
Air quality	<input checked="" type="checkbox"/>				
Health and safety	<input checked="" type="checkbox"/>				
Roads					<input checked="" type="checkbox"/>
Underground water					<input checked="" type="checkbox"/>
Surface water quality	<input checked="" type="checkbox"/>				
Socio-economic			<input checked="" type="checkbox"/>		

Impacts	Benefits and issues
Socio-economic benefits	The project has great potential to improve livelihoods and contribute to sustainable development within the surrounding community.
Potential Direct Benefits	<ul style="list-style-type: none"> - Capital investment - Training programs offered by the proponent will permanently benefit staff members. - The surrounding community will benefit from the project during the on-going phase through employment.
Potential Indirect Benefits	General enhancement of the health conditions and quality of life for a few people in the surrounding settlements.
General socio-economic concerns	<ul style="list-style-type: none"> - As the number of employees and contractors moving in and out of the area expands, so does the chance of COVID-19 and HIV/AIDS spreading. - Increased migration of individuals to the area in search of job possibilities during the mineral exploration project's target generation and drilling phase; and - Increased informal settlement and accompanying difficulties.

Exploration phases	Associated issues
Mapping and Geochemical Sampling Phase of the Project	
Dust	Fall out dust settling on vegetation is likely to cause local disruptions in herbivorous and predatory complexes and should be minimized as far as possible
Noise	Disturbs or scare animals that inhabited in the proposed exploration surrounding areas
Safety and Security	Possibility of injuries during mapping and sampling
Visual	Accidental diversion off of routes and aesthetic damage to the landscape
Drilling Phase of the Project	
Air quality	Vehicle movement may cause less dust. However, when appropriately controlled, will be likely to have little effects.
Fire and Explosion Hazard	Long term environmental impacts
Generation of Waste	Littering the surrounding areas if wastes are not appropriately disposed.
Health and Safety	Can cause serious health and safety risks to workers on site.
Fauna	Disturbances to the environment will result in the loss or change in behaviour of fauna
Vegetation	Disturbances to the environment will result in the loss or change in behaviour of flora
Avifauna	Causes immigration of endemic birds
Heritage Impacts	All archaeological remains are protected under the National Heritage Act (2004) and will not be destroyed, disturbed, or removed.

Groundwater Impacts

- Exploration activities may affect the availability of water and the quality thereof
- Surface water for animals may be affected as well

6. public participation

Notification of the proposed activities were advertised in the two widely common newspaper to consult the public as presented in Appendix, to identify and contact as many potential I&APs as possible. The description of the project was presented and opportunity was given for the I&APs to give their comments and issues. However, currently no stakeholders registered for comment.



We should understand that not everyone is optimistic about Africa's ability to fulfil its promise.

Moreover, in a closed economy that does not trade with the rest of the world, too little spending leads to job losses and downward pressure on prices.

Furthermore, the most significant objective these twin summits appear to be working to achieve is a shift away from reliance on the US dollar. The possibility and prospects of setting up a common single currency based on a basket of currencies of the BRICS countries cannot be overruled.

A BRICS currency could shake the dollar's dominance. Over time, however, if de-dollarisation efforts gain traction, there could be implications for the US economy.

Leaders from both Russia and China have been strongly advocating for a new global reserve currency for several years, and both nations seem determined to break the power that the US dollar has over international trade.

Additionally, other nations are choosing to use their own currencies for oil like China, Russia and India, among others.

It is beyond any doubt that the introduction of these twin summits implied a very important step forward in the long process towards African integration, not only when seen from an economic point of view, but also politically.

In conclusion, it requires plenty of energy, patience, and political leadership. However, the objectives of the partnership, the improvement of competitiveness and greater prosperity in Africa, are so important that efforts to foster this journey should be intensified.

As a longer-term vision, one should see African integration as a step towards better global cooperation and securing peaceful and balanced development.



**ENVIRONMENTAL IMPACT ASSESSMENT
FOR MINING ACTIVITIES ON MINING CLAIM
72401,73399,73400,73396,73398**

Advanced Environmental Agency herewith gives notice in terms of the Environmental Management Act, 7 of 2007 and Regulation 21 of the Environmental Impact Assessment (EIA) for mining activities on mining claims no:72401,73399,73400,73396,73398,73397,73396

PROPONENT: LUXARIOUN MINING CC

PROJECT DESCRIPTION: Mining Activities on mining claims no:72401,73399,73400,73396,73398,73397,73396

PROJECT LOCATION: Kunene Region Near Brandberg

Interested and Affected parties (I& AP) are invited to register with Advanced Environmental Agency for mining activities on mining claims no:72401,73399,73400,73396,73398,73397,73396 within 14 days of the advertisement. Registration can be done by requesting of the Background information document provided in the email below. Any persons having any objection to the email below by:25 to 28 June 2023

**Email: info.advanceenviroment@gmail.com
Cell: 081 480 1644**



With a focus on applied research, the symposium will feature presentations from local and international speakers, sharing cutting-edge knowledge on biomass-related topics.

On 8 September, the industry conference will explore vital aspects such as access to local and international markets, harvesting and processing technologies, bush-biomass products and technical services.

It will also feature local, regional and international speakers who will offer insights into emerging trends and opportunities in the industry.

The variety of exhibitors will present to the market harvesting technology, charcoal, and other wood products, and services for the biomass industry, including access to finance.

Email: erastus@thevillager.com.na



ENVIRONMENTAL IMPACT ASSESSMENT FOR MINING ACTIVITIES ON MINING CLAIM 72401,73395,73400,73396,73398

Advanced Environmental Agency hereby gives notice in terms of the Environmental Management Act, 7 of 2007 and Regulation 21 of the Environmental Impact Assessment (EIA) for mining activities on mining claims no.72401,73395,73400,73396,73398,73397,73398

PROponent: LUXAROUN MINING CC

PROJECT DESCRIPTION: Mining Activities on mining claims no.72401,73395,73400,73396,73398,73397,73398

PROJECT LOCATION: Karoo Region Near Brandberg

Interested and Affected parties (I&AP) are invited to register with Advanced Environmental Agency for mining activities on mining claims no.72401,73395,73400,73396,73398,73397,73398 within 14 days of the advertisement. Registration can be done by requesting of the Background Information document provided in the email below. Any persons having any objection to the email below by 25 to 28 June 2023.

Email: info.advancenvironment@gmail.com
 Cell: 081 480 1644

7. Assessment of the environmental impact

In this section aims to identify all the potential impact assessment both negative and positive impacts, in identifying them the team of environmental specialis have placed mitigation measures in place. So that the proponent may carry them out during the project processes environmentally

8. Impact analysis

In this section, the impacts of the proposed project on human and biophysical environment are evaluated and analyzed. Following the identification of the various potential environmental impacts, the impact analysis framework looked at the impacts under the following categories;

	Temporal scale			Score	
EFFECT	Short term	Less than 5 years		1	
	Medium term	Between 5 and 20 years		2	
	Long term	Between 20 and 40 years (a generation) and from a human perspective almost permanent.		3	
	Permanent	Over 40 years and resulting in a permanent and lasting change that will always be there.		4	
	Spatial Scale				
	Study area	The proposed site /within immediate area of the activity		1	
	Beyond project boundary	Surrounding area outside the project boundary		2	
	Regional	District and Provincial level		3	
	National	Country		4	
	International	Internationally		5	
		Severity		Benefit	
		Slight/Slightly Beneficial	Slight impacts on the affected system(s) or party(ies)	Slightly beneficial to the affected systems(s) or party(ies)	1
	Moderate/Moderately Beneficial	Moderate impacts on the affected system(s) or party(ies)	An impact of real benefit to the affected system(s) or party (ies)	2	
	Severe/Beneficial	Severe impacts on the affected system(s) or party(ies)	A substantial benefit to the affected system(s) or party(ies)	4	
	Very Severe/Very Beneficial	Very severe change to the affected system(s) or party(ies)	A very substantial benefit to the affected system(s) or party(ies)	8	
	Likelihood				

LIKELIHOOD	Unlikely	The likelihood of these impacts occurring is slight	1
	May occur	The likelihood of these impacts occurring is possible	2
	Probable	The likelihood of these impacts occurring is probable	3
	Definite	The likelihood is that this impact will definitely occur	4

: Ranking matrix for Environmental Significance

Environmental Significance		Positive	Negative
LOW	An acceptable impact for which mitigation is desirable but not essential. The impact by itself is insufficient even in combination with other low impacts to prevent development.	4-7	4-7
MODERATE	An important impact, which requires mitigation. The impact is insufficient by itself to prevent the implementation of the project but which, in conjunction with other impacts may prevent its implementation.	8-11	8-11

HIGH	A serious impact, which, if not mitigated, may prevent the implementation of the project. These impacts would be considered by society as constituting a major and usually long-term change to the natural and/or social environment and result in severe negative or beneficial effects.	12-15	12-15
VERY HIGH	A very serious impact, which may be sufficient by itself to prevent the implementation of the project. The impact may result in permanent change. Very often, these impacts are unmitigable and usually result in very severe effects or very beneficial effects.	16-20	16-20

Table 12: Matrix to show environmental significance

	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2	5	6	7	8	9	10	11	12	13	14	15	16	17	18
3	6	7	8	9	10	11	12	13	14	15	16	17	18	19
4	7	8	9	10	11	12	13	14	15	16	17	18	19	20

8. impact evaluation

Negative impacts associated with exploration phase:

Impact on landscape

Identified Impact	Effect					Score	Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact				
Impact on landscape Unmitigated	Short term	1	Study area	1	Moderate impact	2	Definite	4	8
Mitigated	Short term	1	Study area	1	Slight impact	1	May occur	2	5

Exploration activities such as trenching and drilling will disturb the natural state of the land. Disturbance of rocks will cause alternation of existing landscape. Less harm is generally expected during the exploration phase given that trenching shall be limited and done at a small scale with the use of shovels and picks. No machinery shall be used during trenching. If mitigation measures are implemented, the impact is expected to be of low environmental significance.

8.1 Mitigations and recommendation

- Limited trenching should be done to understand the surface geology but when need arise to understand the subsurface geology, drilling should be used.
- Removed rocks and soil should be replaced back and levelling of the area done so as to try to restore the area to its natural state

Dust

Identified Impact	Effect					Score	Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact				

Mitigations and recommendation

- Soil watering when soil works are being executed and where dust is emitted
- People at site should be provided with respirators
- Regular monitoring and review to ensure safe operation

8.2 Noise impact

Identified Impact	Effect					Score	Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact				
Noise Unmitigated	Short term	1	Study area	1	Slight impact	1	May occur	2	5
Mitigated	Short term	1	Study area	1	Slight impact	1	Unlikely	1	4

During exploration, noise above the ambient levels of the area might be generated locally from exploration activities such as drilling and frequenting vehicles. Noise generated is not expected to affect outside the boundaries of the claims. Noise generated might affect employees working at the site hence posing a risk of ear damage. The normal levels of 55 decibels recommended by World Health Organization (WHO) might be surpassed during the exploration phase. Drilling machines can produce noise of 95- 100 decibels. However, the impact of noise will remain of low environmental significance if mitigation measures are implemented.

Mitigations and recommendation

- A drilling interval should be established, used and adhered to and working hours should be limited to minimum of 8 hours per day
- Noise should be addressed and mitigated at an early stage and employees should be equipped with ear protection equipment. • Proper and timely maintenance of machineries and vehicles

4. Vegetation Disturbance

Identified Impact	Effect					Score	Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact				
Vegetation disturbance Unmitigated	Medium term	2	Study area	1	Slight impact	1	May occur	2	6

Mitigated	Medium term	2	Study area	1	Slight impact	1	May occur	2	6
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- Vegetation might be lost and disturbed when establishing cutlines, during trenching and drilling. The severity is expected to be slight given that the Proponent will use existing roads and in cases that the roads need improvement, they will be upgraded. No new roads will be established but cutlines might only be created for accessibility of vehicles thus when there is need. The mining claims are under Dro !nawa Communal Conservancy hence the Proponent shall be compelled to protect the natural resources around the area.

Mitigations and recommendation

- Protected plant species should not be removed but preserved and the activities should fit into the environment without affecting the protected trees.
- Massive clearing shall not be allowed

8.3 Impact on soil

Identified Impact	Effect						Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact	Score			
Soil Unmitigated	Short term	1	Study area	1	Moderate impacts	2	Definite	4	8
Mitigated	Short term	1	Study area	1	Slight impacts	1	Definite	4	7

Soil will be disturbed during drilling and limited trenching. Soil might also be partly affected by oil or fuel leakages from vehicular and drilling machines. The impact is expected to affect only the study area and it will be definite that soil will be disturbed.

Mitigations and recommendation

- After completion of exploration activities such as trenching, removed soil layers must be replaced and levelling must be done so that the original condition is restored.
- Proper care should be taken so that there is no spill that would cause soil contamination
- If any hazardous waste is produced it should be properly handled and sent for disposal to appropriate disposal areas • Fuels shall not be kept/stored at the site

8.4 Impact on surface and groundwater sources

Identified Impact	Effect						Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact	Score			
Surface & groundwater Unmitigated	Short term	1	Study area	1	Moderate impact	2	May occur	2	6
Mitigated	Short term	1	Study area	1	Slight impact	1	Unlikely	1	4

There will be no storage of oils and fuel on site, however there is risk of spillage of hydrocarbons from vehicles and drilling machine which may result in environmental contamination. Groundwater sources might be the ones at risk if any spillages occur.

Mitigations and recommendation

- Implement a maintenance programme to ensure all vehicles, machinery and equipment remain in proper working condition and maintenance should be conducted in designated areas only, preferably off-site.
- Waste oils and fuels from drip trays on stationary vehicles and machinery should be disposed of as hazardous waste at a licensed facility by a specialist hazardous waste handler.

8.5 Impact on fauna

Identified Impact	Effect						Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact	Score			
Impact on fauna Unmitigated	Short term	1	Study area	1	Moderate impact	2	Definite	4	8
Mitigated	Short term	1	Study area	1	Slight impact	1	Unlikely	1	4

Exploration activities (walking around, trenching and drilling) might result in loss for animal habitancy. Noise generated from these activities might also scare away animals. In addition, wild animals might also be at risk if prospectors practice poaching activities for meat.

Mitigations and recommendation

- Working hours should be limited to during the day, thus enabling wildlife to roam freely at night.

Identified Impact	Effect					Score	Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact				
Generation of waste Unmitigated	Short term	1	Study area	1	Slight impact	1	Definite	4	7
Mitigated	Short term	1	Study area	1	Slight impact	1	May occur	2	5

Waste might be generated from unearthed rocks and soil, oils, fuel, food leftovers, papers and plastics. It is definite that waste will be generated from unearthed rocks and soil but if mitigation measures are implemented the impact will be of low environmental significance.

Mitigations and recommendation

- Contaminated wastes in the form of soil, litter and other material must be disposed off at an appropriate disposal site.
- Strictly, no burning of waste on the site or at the disposal site is allowed as it possess environmental and public health impacts
- After completion of exploration activities such as trenching, removed soil layers and rocks must be replaced and levelling must be done so that the original condition is restored

7.3.2 Negative socio-economic impacts associated with exploration phase:

1. Occupational Health and Safety Risks

Identified Impact	Effect					Score	Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact				

O.H.S Unmitigated	Short term	1	Study area	1	Moderate impacts	2	May occur	2	6
Mitigated	Short term	1	Study area	1	Slight impact	1	Unlikely	1	4

Noise, dust and occupational stress are hazards, which are likely to be encountered during the exploration phase. Dust emitted during trenching and drilling can cause pneumoconiosis to employees thus if they are exposed to it for prolonged periods. Moreover, work pressure on employees can cause stress hence resulting into accidents.

Mitigations and recommendation

- Conduct Hazard identification and risk assessments
- Comply with all Health and Safety standards specified in the Labor Act.
- Provide all staff on site with protective equipment (helmets, gloves, respirators, work suits, earplugs, goggles and safety shoes where applicable).

8.6 Population Influx

Identified Impact	Effect						Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact	Score			
Population Influx Unmitigated	Short term	1	Beyond project boundary	2	Slight impact	1	Unlikely	1	5
Mitigated	Short term	1	Beyond project boundary	2	Slight impact	1	Unlikely	1	5

During the exploration phase, there will be people coming to work at the site. However, the Proponent is expecting to hire a few people given that this stage of the project is not labor intensive as compared to mining. The Proponent will hire two permanent employees (geologist and assistant to the geologist), contractors for drilling and locals for manual labor when the need arises. Therefore, the impact of population influx is expected to remain of low environmental significance.

Mitigations and recommendation

- Local employment should be a priority so as to reduce the number of outsiders entering this area

8.7 Heritage impact

Identified Impact	Effect					Score	Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact				
Heritage impact Unmitigated	Short term	1	Study area	1	Moderate impact	2	May occur	2	6
Mitigated	Short term	1	Study area	1	Slight impact	1	Unlikely	1	4

There was no heritage areas identified on site. However, there might be unknown archaeological remains within the mining claims. The proponent is advised consult the head man or other community leaders who might have information on the history of the plot and might know the grave or holy place around the site. incase one should be found the spot should be barricaded off and relevant offices should be informed immedietly.an archeologist is also appointed to contact an archeological study to make sure.

Mitigations and recommendation

- The Proponent should consult the headman and team of the area before conducting any work.
- An archeological study should be done and (NHC certificate should be issued

4. Risk and spread of HIV/AIDS

Identified Impact	Effect					Score	Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact				

HIV/AIDS Unmitigated	Short term	1	Regional	3	Severe impact	4	May occur	2	10
Mitigated	Short term	1	Beyond project boundary	2	Slight impact	1	Unlikely	1	5

The gathering of workers/employees from different contributes to spread of diseases, which can be mitigated by applying the following facts while in the operation process.

Mitigations and recommendation

- Employer should allocate time for employees to visit their families.
- Free distribution of condoms
- HIV/AIDS awareness posters at work place.

8.8 Cumulative Impacts

Identified Impact	Effect					Risk or Likelihood	Score	Overall Significance	
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact				
Cumulative impacts Unmitigated	Short term	1	Study area	1	Slight impact	1	Probably	3	6
Mitigated	Short term	1	Study area	1	Slight impact	1	May occur	2	5

Alternation of existing landscape caused by limited trenching and drilling might impact on archaeological heritage and also result in loss of habitancy for some animals which can further affect the food web. The greatest potential impact of the proposed development on the archaeological heritage of the surrounding landscape will be during the removal of topsoil during limited trenching and drilling on identified areas of interest with possible mineral deposits. The proposed works will have a negative archaeological impact on undisturbed areas of ground where topsoil will be removed.

Mitigations and recommendation

- Limited trenching should be done to understand the surface geology but when need arise to understand the subsurface geology, drilling should be used.
- The Proponent will need to monitor, by seeking consultation from an archaeological consultant during topsoil removal over relatively large areas so as to ensure the full recognition and recording of any buried finds or features.
- Removed rocks and soil should be replaced back and levelling of the area done so as to try to restore the area to its natural state.

8.9 Positive impacts associated with the project

1. Employment creation

Identified Impact	Effect						Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact	Score			
Employment creation Unmitigated	Short term	1	National	4	Very beneficial	8	Definite	4	17
Mitigated	Short term	1	National	4	Very beneficial	8	Definite	4	17

Mines are one of projects that contributes to reduction unemployment, both skilled and unskilled.

2. Local Empowerment

Identified Impact	Effect						Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact	Score			
Local Empowerment Unmitigated	Permanent	4	Regional	3	Very beneficial	8	Definite	4	19
Mitigated	Permanent	4	Regional	3	Very beneficial	8	Definite	4	19

Development of a mine in an area improves the living standard of people while giving donation to schools as well as to the community targeting their needs

8.10 Land utilization for the benefit of people

Identified Impact	Effect						Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact	Score			
Land utilization for the benefit of people Unmitigated	Permanent	4	Regional	3	Very beneficial	8	Definite	4	19
Mitigated	Permanent	4	Regional	3	Very beneficial	8	Definite	4	19

The formation of the company helped locals since they did not have funds to start exploration activities. Given that exploration activities are done and minable deposits are obtained, this can result in utilisation of the land hence benefiting the people.

9. Generation of Revenue

Identified Impact	Effect						Risk or Likelihood	Score	Overall Significance
	Temporal Scale	Score	Spatial Scale	Score	Severity of impact	Score			
Revenue Unmitigated	Permanent	4	National	4	Very beneficial	8	Definite	4	20
Mitigated	Permanent	4	National	4	Very beneficial	8	Definite	4	20

Luxario will pay tax hence generating revenue. More taxes will also be generated through contracted and subcontracted companies.

9.1 Environmental management plan

Overview

Conducting an environmental assessment prior to engaging in an activity such as mining or exploration is one means of anticipating future environmental repercussions and creating ways to avoid or minimize them. Prior to prospecting or mining a specific location, it is usual practice to have an environmental management plan in place. It's crucial to have a well-structured, all-encompassing plan in place, as well as an environmental management system put up by a certified environmental consultant to assist management in making responsible and realistic decisions. Each on-site employee should be given a simplified explanation of the EMP's needs at the start of exploratory activities. Employees must be informed that they are required to follow this plan when this paper is issued.

9.2 Environmental management principles

Everyone will be expected to conduct all of their activities in an environmentally and socially responsible manner. This includes all consultants, contractors, and subcontractors, as well as transport drivers, visitors, and anybody else involved in the mineral exploration project who enters the exploration regions.

Protect project staff and the general public's health and safety from the project's potential consequences. This covers road safety, on-site protection from natural risks, and radiation concerns. Environmental resource management and conservation that takes into account the needs of current and future generations Prevent contamination of the air, water, and soil, and conserve biodiversity.

9.3 Impacts on the bio-physical environment

Table 7 Possible effects on the bio-physical environment, mitigation measures, and their monitoring methods .

Impacts	Mitigation measures	Monitoring methods
<p>Impacts on Archaeological Sites</p>	<ul style="list-style-type: none"> -Buffer zones will be created around the sites. - Adhere to practical guidelines provided by an archaeologist to reduce the archaeological impact of 	<p>An archaeologist will inspect any identified archaeological sites before commencing with the mineral exploration activities.</p>

	<p>mineral exploration activities.</p> <ul style="list-style-type: none"> - All archaeological sites to be identified and protected before further exploration commences. - Notices/information boards will be placed on sites. - Training employees regarding the protection of these sites. 	
<p>Impacts on Fauna</p>	<ul style="list-style-type: none"> - Some habitat areas such as trees of the riverbeds and tunnels outcrops will be avoided wherever possible. - A fauna survey will be conducted to determine the effect of fragmented habitat on game species should the need arise. - No animals shall be killed, captured or harmed in any way. - No foodstuff will be left lying around as these will attract animals which might result in human-animal conflict. - Care will be taken to ensure that no litter is lying around as these may end up being ingested by wild animals 	<p>Regular monitoring of any unusual signs of animal habitat.</p>

	<p>- No animals shall be fed. This allows animals to lose their natural fear of humans, which may result in dangerous encounters.</p>	
<p>Impact on Vegetation</p>	<ul style="list-style-type: none"> - Environmental considerations will always be adhered to before clearing roads, trenching and excavating. - Paths and roads will be aligned to avoid root zones. Permeable materials will be used wherever possible. - The movement of vehicles in riverbeds, rocky outcrops and vegetation sensitive areas will be avoided. - The movement of vehicles will be restricted to certain tracks only. - Areas with species of concern will be avoided. - Ministry of Environment and Tourism will be informed of any 	<p>Environmental education awareness, and regular monitoring of any unusual signs of animal habitat.</p>

	<p>protected species which will be transplanted in consultation with MET.</p>	
<p>Impacts on Socio-Economic</p>	<p>- The population change can be mitigated by employing people from the local community and encouraging</p>	<p>Public meetings will be held by the proponent whenever necessary</p>

	<p>the contractors to employ local individuals.</p> <ul style="list-style-type: none"> - The perception of risks will be mitigated by putting up safety signs wherever possible and ensuring that all employees and visitors to the site undergo a safety induction course. 	
Visual Impacts	Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating.	Employees will be trained on the importance of minimizing visual impacts.
Generation of Solid Waste	Commit to the management of solid waste life cycle by all the employees and contractors of the site.	Transportation of solid waste to a registered site for disposal.
Noise	Disturbance to fauna that roam the area will be minimized by training the employees on ways to minimize noise.	Restriction duration of noise pollution.
Air quality	<ul style="list-style-type: none"> - All staff on should be equipped with dosimeters that measure exposure levels to radiation. - All staff must be made aware of the health risk and obliged to wear dust masks. 	

Use of Natural Resources	The bulk of the power supply to the exploration site will be sourced from the proponent's own generator. The proponent will drill a borehole as a water source.	The proponent will use water efficiently and recycle wherever possible.
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CONSTRUCTION PHASE			
Environmental impacts	Proposed mitigation measures	Responsibility	Monitoring plan
Solid waste	<ul style="list-style-type: none"> - Any debris should be collected by a waste collection company - If trenches are dug, waste should be re-used or backfilled. - The site should have waste receptacles with bulk storage facilities at convenient points to prevent littering during exploration. 	Management	Presence of well-Maintained receptacles and central collection point.
Oil leaks and spills	<ul style="list-style-type: none"> - Vehicles and equipment should be well maintained to prevent oil leaks. - Contractor should have a designated area where maintenance is carried out and that is protected from rainwater. 	Proponent	No oil spills and leaks on the site
Visual	<ul style="list-style-type: none"> - Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating. 	Management	Employees will be trained on the importance of minimizing visual impacts.
Archaeological Sites	<ul style="list-style-type: none"> - Adhere to practical guidelines provided by an archaeologist to reduce the archaeological impact of mineral exploration activities. - All archaeological sites to be identified and protected before further exploration commences. 	Management	
Air pollution	<ul style="list-style-type: none"> - Maintenance of vehicles and equipment. - Control speed and operation of construction vehicles. - Prohibit idling of vehicles. - Workers should be provided with dust masks if working in sensitive areas. 	Site manager	Control amount of dust produced

Noise pollution	<ul style="list-style-type: none"> - Field work should only be carried out only during daytime at a specific time. - Workers should wear earmuffs if working in noisy section. 	Proponent and management	Control amount of noise
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	<ul style="list-style-type: none"> - Management to ensure that noise is kept within reasonable levels. 		
Soil pollution	<ul style="list-style-type: none"> - Clearly mark/demarcate vehicle routes. - No worker should ever drive off road, but to stick to the demarcated routes. 	Project coordinator Management and park warden	Proper planning and management
Flora	<ul style="list-style-type: none"> - Care should be taken to avoid/minimize destruction of endemic and Red Data Species. - A geologist should be consulted with respect to the viability of moving the trench to avoid destruction of fragile species. 	Management and proponent	Warning signs on site and restored vegetation
Fauna	<ul style="list-style-type: none"> - Some habitat areas such as trees of the riverbeds and tunnels outcrops will be avoided wherever possible. - A fauna survey will be conducted to determine the effect of fragmented habitat on game species should the need arise. - No animals shall be killed, captured or harmed in any way. - No food will be left lying around as these will attract animals which might result in human- animal conflict 	Management	Regular monitoring of any unusual signs of animal habitat.
Occupational Health and Safety	<ul style="list-style-type: none"> - Provide Personal Protective Equipment Train workers on personal safety and how to handle equipment and machines. - A well-stocked first aid kit shall be maintained by qualified personnel. - Provide sufficient and suitable sanitary conveniences which should be kept clean. 	Proponent	<ul style="list-style-type: none"> - Workers using protective equipment. - Presence of Well stocked first aid kit. - Clean sanitary facilities.
OPERATIONAL PHASE			

Oil leaks and spills	<ul style="list-style-type: none"> - Impervious PVC sheets should be deployed as flooring and covered with sand to absorb - spillages Should spillages occur, contaminated sand needs to be removed and stored in a drum, to 	Proponent	No oil spills and leaks on the site.
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	be later removed to an approved disposal site		
Solid waste	<ul style="list-style-type: none"> - Under no conditions should any waste be buried or burned at the site - Minimize solid waste generated on site. - Waste to be deposited at a demarcated waste site in the park or if it needs to be removed to designated sites outside the park 	Proponent Management	Presence of well-Maintained receptacles and central collection point.
Visual	<ul style="list-style-type: none"> - Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating. - Siting of roads should avoid the traversing of tops of ridges and always use of existed roads rather than creating new ones. - Erected infrastructure should be sited in depressions not on hill tops or rises and should not be visible from any major tourist roads lookout points. 	Park wardens and Management	Employees will be trained on the importance of minimizing visual impacts.
Archaeological Sites	<ul style="list-style-type: none"> - Adhere to practical guidelines provided by an archaeologist to reduce the archaeological impact of mineral exploration activities. - Should any item of interest be located, all activities need to cease immediately at that location, and notify the National Monuments Council. 	Management	Update Register of all archaeological sites identified.
Noise pollution	<ul style="list-style-type: none"> -Workers to wear earmuffs if working in noisy section -Management to ensure that noise is kept within reasonable levels. 	Proponent Management	Control amount of noise

Soil pollution	<ul style="list-style-type: none"> - The top soil needs to be removed and stockpiled - Stockpiled soil must be covered to prevent it from being windblown within three months - All hydro-carbon products need to be stored in a bunded area, to avoid any accidental spillages. 	Project coordinator Management and park warden	Proper planning and management
Flora	- Care should be taken to avoid/minimize destruction of endemic and Red Data Species.	Management and contractor	Warning signs on site and restored vegetation

	<ul style="list-style-type: none"> - A geologist should be consulted with respect to the viability of moving the trench to avoid destruction of fragile species. 		
Fauna	<ul style="list-style-type: none"> - Strict employee's code of conduct including prohibition of hunting or trapping or interfering in any manner with any wild animals. - No feeding of wild animals should be allowed. - Litter should be prevented and adequately disposed of to prevent attracting scavenging wild animals. 	Management	Regular monitoring of any unusual signs of wild animal habitat.
Environment Health and Safety	<ul style="list-style-type: none"> - Train workers on personal safety and disaster preparedness. - A well-stocked first aid kit shall be maintained by qualified personnel. - Report any accidents / incidences and treat and compensate affected workers. - Provide sufficient and suitable sanitary conveniences which should be kept clean. - Conduct Annual Health and Safety Audits. 	Management	Provide sanitary facilities.
Fire preparedness	<ul style="list-style-type: none"> - Firefighting emergency response plan. - Ensure all firefighting equipment are regularly maintained, serviced and inspected. - Fire hazard signs and directions to emergency exit, route to follow and assembly point in case of any fire incidence. 	Management	<ul style="list-style-type: none"> - Proof of inspection on firefighting equipment - Fire Signs put up in strategic places. - Availability of firefighting equipment.

DECOMMISSIONING PHASE			
Solid waste	<ul style="list-style-type: none"> - Solid waste should be collected by a contracted waste collection company - Excavation waste should be re- used or backfilled. 	Proponent and Management	Amount of waste on Site. Presence of well-maintained receptacles and

			central collection point
Noise & Air pollution	<ul style="list-style-type: none"> - Maintain plant equipment. Decommissioning works to be carried out only during daytime. Workers working in noisy section to wear earmuffs. Workers should be provided with dust masks. 	Proponent and Management	Amount of noise
Soil pollution	<ul style="list-style-type: none"> - The contaminated soil needs to be treated either by adding bacteria which break down spilled hydrocarbon, or by simply distributing the soil thinly in direct sunlight to naturally break down the hydrocarbons. 	Proponent	
Disturbed Physical environment	<ul style="list-style-type: none"> - Undertake a complete environmental restoration program and introducing appropriate vegetation 	Management	Management
Occupational Health and Safety	<ul style="list-style-type: none"> - Provide Personal Protective Equipment. - Train workers on personal safety and how to handle equipment and machines. A well-stocked first aid kit shall be maintained by qualified personnel. Demarcate area under decommissioning. 	Proponent	<ul style="list-style-type: none"> - Workers using Protective Equipment. - Presence of a First Aid Box.

<p>Visual pollution</p>	<ul style="list-style-type: none"> - Rake the track or drag tyres to smooth tracks - Removal of all construction equipment, surplus material and temporary structures, fences and works of every kind, and everything that was brought at the site. 		<p>Rehabilitation of every foreign material at the site</p>
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10 . Monitoring, Auditing and Reporting

10 .1 Inspections and Audits

Performance against the EMP commitments will need to be reviewed throughout the project's life cycle, with corrective action implemented as needed, to guarantee compliance with the EMP and any Enviro-legal obligations. This will include conducting both the internal inspections/audits and external audits, documentation, reporting, establishing an environmental management systems, adhere to the drafted environmental policy, maintain the impact aspect register, drafting procedures and method statements by the relevant responsible mineral exploration staff and contractors, determining the relevant roles and responsibilities, and others.

Internal compliance monitoring will be implemented in the following manner:

- a) All contractors will be subjected to project kick-off and close-out audits. This applies to all phases of the process, including drilling contract work:
 - Before a contractor begins work, the applicable phase site manager will perform an audit to confirm that the EMP commitments are reflected in the contractor's standard operating procedures (SOPs) and method statements.
 - After a contractor's work is completed, the applicable phase site manager will conduct a final close-out audit of the contractor's performance against the EMP commitments.
- b) During the construction/initial and decommissioning phases, monthly internal EMP performance audits will be conducted.

10.3 Roles and responsibilities for environmental management

10.4 Communication between Parties

Emphasis will be put towards open communication between all parties, in order to reach a proactive approach towards potential environmental issues deriving from the project. This approach should guarantee that environmental impacts are anticipated and prevented, or minimised, rather than adopting a negative “policing” approach after negative impacts have already occurred. The importance of a proactive approach cannot be overemphasised, particularly in relation to preventing unnecessary tracks, and damage to vegetation (i.e. protected and endemic species) as these impacts cannot easily be remedied.

10.5 The Operating Company

The company is ultimately responsible for all stages of the project and the impacts resulting from those activities. The responsible persons will be the company's Environmental Control Officer (ECO) and Managing Director to ensure that:

- The EMP and its environmental specifications are included in contractual documents and it is required that contractors, and subcontractors, consultants etc. do meet the EMP requirements;
- The company and all its subcontractors, consultants etc. comply with all Namibian legislation and policies and any relevant International Conventions;
- Compliance with the environmental specifications are enforced on a day-to-day basis;
- Environmental audits are conducted periodically by a suitably qualified ECO to confirm that the environmental requirements are properly understood and effectively implemented;
- Sufficient budget is provided to implement those measures that have cost implications;
- The site manager must commission tree surveys well in advance of planned road construction or drill pad preparation so that the necessary site visits by forestry personnel and forestry permits are acquired; and,
- Open an effective communication between all parties concerning environmental management on the project.

10.6 Site managers

Day-to-day responsibility for environmental management will be assigned to the ECO and Manager Field Operations site manager for the duration of all operational activities to:

- Be familiar with the contents of the EMP and applicable sections of the EIA and the measures recommended therein;
- Monitor compliance with the environmental specifications on a daily basis and enforce the environmental compliance on site by communicating the ECO's directions to all personnel involved;

- In the event of any infringements leading to environmental damage, personnel need to consult with the ECO and seek advice on any remedial measures to limit or rectify the damage;
- Maintain a record (photographic and written) of “before-and-after” conditions on site;
- Facilitate communication between all role players in the interests of effective environmental management

10.7 Environmental Control Officer (ECO)

Laxuario mining cc must appoint a suitably qualified ECO who is responsible to:

- Undertake environmental audits of overall compliance with the environmental specifications. This should be done at least bi-annually for the warehouse.
- Submit a site inspection report to the Managing Director and MFO;
- Advise the MFO on interpretation and implementation of the environmental specifications as required; and,
- Make recommendations for remedial action in cases of non-compliance with the environmental specifications.

11 .Environmental Management System Framework

The proponent and its contractors will create and implement an Environmental Management System (EMS) in order to apply Environmental Management Practices. The structure for compiling a project EMS is established in this section. All environmental management paperwork will be kept in a paper and/or electronic system by the applicable exploration

EMP. These may include, but are not limited to:

- Standard operating procedures for the implementation of the environmental action plan and management program.
- Procedures for dealing with incidents and emergencies.
- Procedures for auditing, monitoring, and reporting, as well as
- EMP compliance method statements for ad hoc actions not explicitly covered in the EMP action plans.

(a) Register of Roles and Responsibilities

Relevant roles and duties will be identified during project planning and risk assessments. All environmental commitment duties and obligations must be documented in a register. The register must include pertinent contact information and be updated as needed.

(b) Site Map

It is essential to keep an up-to-date map of the exploration site that shows all project activities.

The following detail, in addition to the project layout, must be depicted:

- Material handling and storage
- Waste management (collection, storage, and transfer, among other things);
- Areas with a high level of sensitivity;
- The location of the incident and emergency equipment; and the location of the accountable parties.

(c) Environmental Management Schedule

The applicable phase site managers and/or relevant Contractors must keep a schedule of environmental control actions. The exploration manager is responsible for keeping a master schedule of all such activities up to date. Environmental risk assessments, environmental management meetings, and other scheduled environmental actions include, but are not limited to:

- Handling, managing, and rehabilitating soils
- Waste removal
- Inspection and repair of incident and emergency response equipment
- Environmental education
- Participation of stakeholders; environmental inspections; and
- Auditing, monitoring, and reporting are all part of the auditing, monitoring, and reporting process.

(d) Change Management

The EMS must have a change management procedure in place. In this regard, environmental documentation, procedures and method statements, action plants, and other related documents will be updated and revised as needed to account for the following scenarios:

Changes in standard operating procedures (SOPs), scope changes, ad hoc activities, project phase changes, and duties or roles changes

12. Closure Plan

The proposed project's closing plan is to develop a secure, stable, and non-polluting post- prospecting landscape that may support integrated, self-sustaining, and value-generating activities, leaving a positive legacy in the process. The closure plan's goals are to:

- Prioritizing the creation of a functional post-prospecting environment that allows for self- sustaining agricultural operations whenever possible.
- To promote the restoration of terrestrial and aquatic wetland biodiversity, when appropriate.

12.1 Alternatives Considered

Because this is an exploration project, the proposed project is not complicated, and the hazards associated with prospecting are well understood and may be mitigated once the project is completed. There are few alternatives for closure. There are just two activity possibilities for the closure plan that have been considered:

12.2 First alternative:

Closure or backfill of boreholes with overburden removed during drilling (best option).

12.3 Second alternative

Leaving boreholes open to allow for groundwater recharge from surface run-off.

Preferred Alternative: Rehabilitation/ Backfill of boreholes

The restoration of a disturbed environment that has been deteriorated as a result of operations such as mining, road construction, or waste disposal to a land use similar to that which existed before the activity began is known as rehabilitation. This involves aesthetic concerns, so that a disturbed region does not stand out from the surrounding surroundings. Backfilling boreholes with overburden removed during development and covering with growth medium to produce vegetation is the preferred technique for preserving physical, chemical, and biological ecosystem functions in degraded environments. This option provides a number of benefits, which are listed below:

Benefits:

- The site will be pleasing to the eye
- The location will blend in with the surroundings
- The site will be a suitable habitat for fauna and flora again

- The site will be safe and pollution-free

Option 1, which is to leave boreholes unback filled, carries the risk of these boreholes filling with water, which could attract wildlife and communities, resulting in drowning and the possibility of getting trapped in the declines. Backfilling is required to reduce these dangers.

13. Closure Assumptions

This closure plan was created using the minimal information available, including environmental data. During the operational phase, some of the already accessible data may need to be enhanced. To construct the suggested closure actions, numerous assumptions were made about general conditions, as well as the closure and rehabilitation of the site's facilities. These assumptions will be examined and amended as more information becomes available during operations.

The following are some of the assumptions that were utilized to create this plan:

- Once the last intended weight of minerals has been removed from the site for laboratory testing, the closing period will begin.
- The recommended prospecting sites will be followed to the letter in order to minimize potential consequences.
- Vegetation will be established in accordance with the native vegetation of the project area.
- Water management infrastructure constructed during the operational period will be kept for closure / end of project life if needed.
- There are few chances to build infrastructure on site, and any infrastructure that is created will be of minimal utility to the community. As a result, all structures will be demolished.
- All hazardous and household garbage will be carried offsite to licensed landfills for disposal.
- Existing roads will be utilized to the greatest extent practicable. Where access tracks have been built in the absence of roads, they will be restored and closed as part of the standard closure process.

Closure and Rehabilitation Activities

The remediation procedures that will be conducted when the projected prospecting activities reach the end of their life cycle are explained below:

13.1 Infrastructure

All infrastructure will be decommissioned, and the footprints will be repaired so that vegetation can grow. To minimize any surplus materials at closure, material inventories will be maintained at the end of prospecting activities. Equipment and materials of value that aren't needed for post-closure operations will be sold or removed from the site as much as possible. Scrap and salvageable equipment will be removed from the site and sold to recyclers.

Following the completion of demolition activities, a soil contamination investigation will be carried out. The goal is to identify potential contaminated locations and then create and implement appropriate remediation methods to ensure that soil contaminants are removed. The following actions will be taken to bring the situation to a close:

- Prior to undertaking any decommissioning work, all power and water services will be disconnected and certified as safe
- All remaining inert equipment and decommissioning waste will be disposed of at the nearest licensed general waste disposal facility
- Salvageable equipment will be removed and transported offsite prior to and during decommissioning
- All tanks, pipes, and sumps containing hydrocarbons will be flushed or emptied prior to removal to ensure no hydrocarbon/c is present

13.2 Bore holes

Boreholes will be backfilled with overburden stripped before prospecting activities begin. All overburden should be dumped into the vacuum, and the finished surface should be moulded to match the surrounding terrain while remaining free draining. After backfilling, a growth medium cover will be installed, and vegetation will begin to grow.

13.3 Roads

Existing roads will be utilized to the greatest extent practicable. • All signage, fences, and shade structures, as well as traffic barriers, will be removed as part of the road and parking area closure.

- All 'hard top' surfaces, as well as any concrete structures, must be ripped.
- All potentially contaminated soils must be identified and delineated for further treatment

- All haul routes treated with saline dust suppression water must be treated, with the upper surface pulled off and disposed of in authorized contaminated disposal places.

13.4 Remediation of Contaminated Areas

- All hydrocarbon-containing tanks, pipes, and sumps will be flushed or emptied, and removed soils will be treated according to the nature and amount of the pollution.
- The liquid storage tanks will be drained, the structure will be removed/demolished, and the sub-surface holes will be plugged; and
- All equipment used to store or transport chemicals will be cleaned and disposed of at a proper disposal facility.

13.5 Vegetation

Using non-invasive plants that meet the habitat's criteria, successful revegetation will help control erosion of soil resources, maintain soil productivity, and reduce sediment loading in streams (e.g. soils, water availability, slope and other appropriate environmental factors). Invasive species will be avoided, and the area will be managed to keep them from spreading. On slopes, naturally occurring grassland species will be planted to combat the effects of erosion. These plants will increase soil holding capacity while also lowering runoff velocity. The flat areas will be re-vegetated with the goal of establishing a long-term ecology. Before vegetation is removed, the presence of protected plant species must be identified, and the necessary licenses for destruction or relocation must be secured.

13.5 Waste Management

Hazardous waste will be controlled, sorted, and disposed of, while non-hazardous garbage will be disposed of in a nearby permitted landfill site. Scrap and waste steel will be sold to recyclers. Wastes to be contained in animal-proof drums with a solid lid, and drums be in an enclosed fence, to prevent windblown debris from escaping, and scavenging animals from rummaging through the waste

The scoping report is prepared for the Environmental Impact Assessment for mineral exploration in the Doro 1nawa conservancy in the area of northern brand berg.

14. Conclusion and recommendations

The approach and methodology will be guided by the Environmental Regulations of 2012 and as per proponent's provisions. The project will employ individuals from the local towns and communities throughout the exploratory phase. If the exploratory project results in the finding of a commercially viable mineral deposit, a mine could be built in the area. A mine can make a substantial contribution to the social and economic development of the town.

On condition that the relevant mitigation measures are effectively implemented by the proponent, there are no environmental reasons why the proposed project should not be approved. The project will have significant positive economic impacts that would benefit the local, regional and national economy of Namibia.

15. references

- Bendi, M. (2003). Namibia: Mining Overview. Retrieved May 10, 2022
- Ministry of Environment, Forestry and Tourism. (2021).
- Management Plan for Skeleton Coast National Park 2021/2022-2020/2031. Windhoek: MEFT.
- Mendelsohn, J., Jarvis, A., Roger, S., & Roberstson, T. (2012).
- The coast of Kunene and the Skeleton Coast Park: Namibia's coast. Windhoek: Namibian Coast Conservation and Management (NACOMA) project,
- Ministry of Environment and Tourism. MET. (2007). Retrieved from <https://www.namibiahc.org.uk>
- ENVIRONMENTAL IMPACT ASSESSMENT FOR PROPOSED EXPLORATION ACTIVITIES ON MINING CLAIMS 70889, 70890 & 70891 NEAR OTJAPITJAPI AREA, OPUWO RURAL CONSTITUENCY KUNENE REGION (eco wise consultancy
- MIT. (2003). Report on investment opportunities in mining. Retrieved May 10, 2022, from <http://www.mti.gov.na/invopps text/mining.htm> Namene, C. P. (2020).
- White, N. C. (2005). Mining geology: Exploration. Encyclopedia of Geology.

